

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions, and listings, of claims in the application.

1. (Currently Amended) A ridge waveguide semiconductor laser including an optical resonator and comprising:

an active layer;

a semiconductor layer on said active layer and having a ridge-shaped waveguide therein;

an insulating film on said semiconductor layer and having a thickness not exceeding 250 nm;

a first electrode layer in contact with said semiconductor layer through an opening in said insulating film; and

a second electrode layer, on said first electrode layer, having a stripe shape, and extending generally parallel to said waveguide, wherein distance from an end face of the resonator to an edge of said second electrode layer is less than 20 μm .

2. (Previously Presented) The ridge waveguide semiconductor laser according to claim 1, further comprising:

an electrode lead-out line extending from said second electrode layer; and

a bonding pad on said insulating film extending from said electrode lead-out line.

3. (Currently Amended) ~~The~~ A ridge waveguide semiconductor laser ~~according to claim 1, wherein~~ including an optical resonator and comprising:

an active layer;

a semiconductor layer on said active layer and having a ridge-shaped waveguide therein;

an insulating film on said semiconductor layer;

a first electrode layer in contact with said semiconductor layer through an opening in said insulating film, said first electrode layer ~~includes~~ including a titanium electrode layer and a gold electrode layer, laminated in that order~~;~~, and said gold electrode layer ~~has~~ having a thickness of at least 700 nm; and

a second electrode layer, on said first electrode layer, having a stripe shape, and extending generally parallel to said waveguide, wherein distance from an end face of the resonator to an edge of said second electrode layer is less than 20 μm .

Claim 4 (Cancelled).

5. (Currently Amended) ~~The~~A ridge waveguide semiconductor laser ~~according to claim 1, wherein:~~including an optical resonator and comprising:

an active layer;

a semiconductor layer on said active layer and having a ridge-shaped waveguide therein;

an insulating film on said semiconductor layer;

a first electrode layer in contact with said semiconductor layer through an opening in said insulating film, said first electrode layer ~~includes~~ including a titanium electrode layer and a gold electrode layer, laminated in that order~~;~~, said gold electrode layer having a thickness of at least 200 nm; and

a second electrode layer on said first electrode layer, having a stripe shape and extending generally parallel to said waveguide, said second electrode layer ~~is being~~ a gold-plated layer; ~~said gold electrode layer has a thickness of at least 200 nm; and said gold-plated layer has~~ having a thickness of at least 800 nm, wherein distance from an end face of the resonator to an edge of said second electrode layer is less than 20 μm .

6. (Previously Presented) The ridge waveguide semiconductor laser according to claim 5, further comprising a barrier metal layer between said titanium electrode layer and said gold electrode layer.

7. (Previously Presented) The ridge waveguide semiconductor laser according to claim 6, wherein said barrier metal layer is a platinum layer.

Claims 8-14 (Cancelled).

15. (New) The ridge waveguide semiconductor laser according to claim 3 wherein the second electrode layer is a gold-plated layer having a thickness of at least 800 nm.